

## ABSTRACT

A receiver for receiving a CDMA communication signal that is wirelessly transmitted includes a system for correcting phase errors in an information signal which has been transmitted. The correction system comprises circuitry for generating a mixing signal and for combining the mixing signal with said information signal to produce a correction signal. An analyzer analyzes the phase of said correction signal and generates an error signal based on the deviation of the analyzed phase from a reference phase. A bandwidth controller which recursively adjusts the phase of the correction signal such that the phase of said correction signal is substantially equal to said reference phase. The bandwidth controller then selects a bandwidth within an adjustable range based on the correction signal, estimates an offset by interrogating the error signal, and modifies said correction signal by the offset.